

Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

Southeast Supply Header LLC (SESH)
Southeast Supply Header LLC (SESH) - Delhi Compressor Station
Delhi, Richland Parish, Louisiana
Agency Interest Number: 149359
Activity Number: PER20080002
Proposed Permit Number: 2460-00020-V2

I. APPLICANT

Company:

Southeast Supply Header LLC (SESH) - Delhi Compressor Station
PO Box 21734
Shreveport, Louisiana 71151-1734

Facility:

Southeast Supply Header LLC (SESH)
4 Mi S of
Delhi, Richland Parish, Louisiana
Approximate UTM coordinates are 642.3 kilometers East and 3586.6 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS

The Delhi Compressor Station utilizes two (2) natural gas fired Solar compressor turbines each with an ISO rating of 15,000 Hp. The station is also be equipped with a Waukesha emergency generator rated at 880 bhp, 11 diffuser vessels for collection of pipeline condensate ranging in size from 5 to 420 gal, a condensate storage tank, facilities for truck loading of condensate, miscellaneous natural gas release vents, piping components and a remote reservoir parts washer.

Southeast Supply Header LLC (SESH) - Delhi Compressor Station is a designated Part 70 source. The permits issued to the facility are as follows:

Permit No.	Unit or Source	Date Issued
2460-00020-V1	Delhi Compressor Station	August 18, 2008
2460-00020-V0	Delhi Compressor Station	September 18, 2007

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III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application was submitted on December 15, 2008 requesting a Part 70 operating permit modification for the Delhi Compressor Station.

Project

Southeast Supply Header, LLC - Delhi Compressor Station proposes the following changes:

- Add one 15,000 hp Solar compressor turbine
- Add one 300 kW Emergency Generator and include new NSPS Subpart JJJJ requirements
- Add one 0.36 MMBtu/hr heating device as an Insignificant Activity
- Update gas release emissions

Proposed Permit

Permit 2460-00020-V2 will be the modification of Part 70 operating permit 2460-00020-V1 for the Delhi Compressor Station.

Permitted Air Emissions

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	7.74	11.61	+3.87
SO ₂	3.98	5.99	+2.01
NO _x	58.87	88.42	+29.55
CO	111.45	167.95	+56.50
VOC #	73.65	98.69	+25.04

#VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change*
1,3-Butadiene	-	0.005	+0.005
2,2,4-Trimethylpentane	0.05	0.05	-
Acetaldehyde	-	0.29	+0.29
Acrolein	-	0.065	+0.065
Benzene	0.88	1.16	+0.28
Ethylbenzene	-	0.56	+0.56
Formaldehyde	2.89	4.22	+1.33
n-Hexane	2.16	1.88	-0.28

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#VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change*</u>
Methanol	0.01	0.02	+0.01
Naphthalene	-	0.01	+0.01
PAH	-	0.012	+0.012
Propylene Oxide	-	0.18	+0.18
Toluene	1.86	2.42	+0.56
Xylene	2.26	3.07	+0.81
Total	10.11	13.942	+3.832

*Many of these Toxic Air Pollutants (TAPs) were not speciated in the previous permit. Therefore, this change does not necessarily represent an actual emission change.

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Applicability and Exemptions of Selected Subject Items

See section XI table 2 of permit.

Prevention of Significant Deterioration/Nonattainment Review

This permit was reviewed for compliance with 40 CFR 70 and the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply. This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

Streamlined Equipment Leak Monitoring Program

None

MACT Requirements

None

Air Quality Analysis

Emissions associated with the proposed facility/modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

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General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

None

VI. PERIODIC MONITORING

All periodic monitoring is conducted in accordance with state and federal regulations. See the Specific Requirements Section of the proposed permit for monitoring requirements.

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VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air

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Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.